for Women incorporated with it. He was a few years ago president of the Society of Chemical Industry, and is a vice-president of the Chemical Society. The Regius chair, resigned by the late Prof. John Ferguson in 1915, has since then remained vacant owing to the war.

The following appointments to new chairs have been made by the University Court:—*Gardiner Chair of Bacteriology:* Dr. C. H. Browning, director of the Bland-Sutton Institute of Pathology at the Middlesex Hospital, and professor of bacteriology in the University of London. *Gardiner Chair of Organic Chemistry:* Dr. T. S. Patterson, Waltonian lecturer, and lecturer in organic chemistry in the University of Glasgow. *Gardiner Chair of Physiological Chemistry:* Dr. E. P. Cathcart, professor of physiology, London Hospital Medical School. These three important new chairs owe their foundation to the munificent endowment of Mr. William Guthrie Gardiner and Mr. Frederick Crombie Gardiner, shipowners, Glasgow. The sum of 20,000*l.* was provided for each chair—60,000*l.* in all. The benefaction contributes greatly to the equipment of the University for dealing with important scientific studies. The subjects of the chairs are among those in which some of the most remarkable modern developments have taken place. It is provided that the professor of bacteriology shall apply himself to the promotion of instruction and research in relation to bacteriology as bearing on disease, and that the holders of the other chairs shall apply themselves to the promotion of instruction and research in their different subjects.

LONDON.—Sir William H. Beveridge has been appointed Director of the London School of Economics.

Mr. T. L. Wren has been appointed to the University readership in geometry tenable at University College. In the session 1913–14 Mr. Wren was assistant lecturer in mathematics at Bedford College, and was then for two years lecturer at St. John's College, Cambridge.

A scheme was approved for the establishment at University College of a school of librarianship from funds provided by the generosity of the Carnegie trustees. The school will be administered by a committee consisting of representatives of University College and of the Library Association. Dr. E. A. Baker has been appointed director.

Lloyd's Register of Shipping has presented 10,000*l.* to the fund which is being raised to establish a degree in commerce at the University. The trustees of Sir Ernest Cassel have promised 150,000*l.* if a similar sum is subscribed before October. It is estimated that a sum of 500,000*l.* will be required to make suitable provision for the subject in the University.

The title of emeritus professor has been conferred upon the following:—Prof. Sir George Thane, who has resigned the chair of anatomy at University College, which he has held since 1877 (with the title of University professor since 1907); Prof. F. M. Simpson, who has resigned the chair of architecture at University College, which he has held since 1903 (with the title of University professor since 1907); and Prof. A. K. Huntington, who has resigned the chair of metallurgy at King's College, which he has held since 1879 (with the title of University professor since 1912).

The Senate has resolved to institute a University chair of botany tenable at Bedford College.

The following doctorates have been conferred by the Senate:—*D.Sc. in Biochemistry:* Mr. S. S. Zilva, an internal student, of the Lister Institute of Preventive Medicine, for a thesis entitled "The Influence of Deficient Nutrition on the Production of Agglutinins, Complement and Amboceptor." *D.Sc. in Physiology:* Mr. E. W. H. Cruickshank, an internal student, of University College, for a thesis entitled (1) "The Production and Utilisation of Glycogen in Normal and Diabetic Animals," and (2) "The Digestion and Absorption of Protein and Fat in Normal and Depancreatised Animals." *D.Sc.* (*Economics*): Mr. E. W. Shanahan, an internal student, of the London School of Economics, for a thesis entitled "The Production and the Consumption of Animal Foodstuffs, with Special Reference to the British Empire." *D.Sc. in Botany:* Mr. James Small, an external student, for a thesis entitled "The Origin and Development of the Compositæ," together with subsidiary contributions.

LT.-COL. SIR THEODORE MORISON has been appointed Principal of Armstrong College, Newcastle-upon-Tyne, in succession to Sir Henry Hadow.

PROF. W. M. GARDNER, head of the chemistry and dyeing department of Bradford Technical College since 1895, and principal of the college since 1906, is retiring on account of ill-health.

THE trustees of the Beit Fellowships for Scientific Research, which were founded and endowed in 1913 by Mr. Otto Beit in order to promote the advancement of science by means of research, have recently elected Mr. Jonas Arthur Hey to a fellowship. Mr. Hey was educated at the Keighley Trade and Grammar School, 1907–14, and has been a student at the Imperial College of Science and Technology since, except for the period of his war service. He will carry out his research at the Imperial College.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, July 7.—M. Léon Guignard in the chair.—C. **Richet**, P. **Brodin**, and F. **Saint-Girons**: The immunising action of sodium chloride against anaphylactic injection. The second injection of plasma, which normally causes a violent anaphylactic shock, can be rendered also innocuous by dilution with nine times its volume of an isotonic (0·8 per cent.) solution of common salt. The sodium chloride cannot be replaced by glycose. The plasma injected was from the horse, and dogs were used in the experiments, but the authors regard the immunising action of the salt as general, and not limited to these special cases.—A. **Blondel**: Some properties of the bipolar diagram of synchronised alternators on a network at constant potential.—V. **Grignard** and Ed. **Urbain**: The preparation of phosgene by means of carbon tetrachloride and oleum or ordinary sulphuric acid. The best yield of phosgene in this reaction is obtained with oleum containing 45 per cent. of SO_3, and SO_3HCl is left as the residual product. If the presence of some HCl in the phosgene is without objection, ordinary sulphuric acid may with advantage be substituted for the oleum, using infusorial earth as catalyst.—M. Emanuele Paterno was elected a correspondant for the section of chemistry in succession to M. G. Charpy, elected member of the division of the applications of science to industry.—V. **Karpen**: The cause of the adherence of the concrete to the iron in armoured concrete constructions.—MM. **Auclair** and **Bover-Guillon**: An accelerograph.—J. **Ubach**: Observations of the annular eclipse of December 3, 1918, made at Buenos Aires.—F. **Diénert** and F. **Wandenbulcke**: The action of sodium thiosulphate upon hypochlorites. When a potable water has been treated with hypochlorite, it is

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necessary to know the exact amount of sodium thiosulphate to be added to destroy the free chlorine. The course of the reaction is variable, depending on the presence or absence of free carbon dioxide in the water, and a direct laboratory experiment must be made in each case.—M. **Lespieau**: Cryoscopy in acetylene tetrabromide. This substance, when pure, melts at +0·13° C., and has a high cryoscopic constant, 217.—M. **Picon**: The preparation of some true substituted acetylenes by means of the monosodium derivative of acetylene. A description of the preparation of heptine, decine, and octodecine.—Ch. **Mauguin** and L. J. **Simon**: The action of concentrated sulphuric acid upon carbon tetrachloride.—S. **Posternak**: The constitution of the reserve phospho-organic principle of green plants.—A. **Krempf**: A primitive and essential stage, so far unrecognised, in the development of the Anthozoa.—A. **Rochon-Duvigneaud**: The double retinal fovea in birds of prey flying by day.

VICTORIA.

Royal Society, May 8.—Mr. J. A. Kershaw, president, in the chair.—R. H. **Walcott**: Origin of the volcanic tuff of Pejark Marsh, Victoria. The following results, giving further evidence of the formation *in situ* of the bedded volcanic tuffs, were obtained during excavations at this locality to find further data as to man's antiquity in Victoria. This evidence consists of the continuous thinning out of the beds away from the probable points of eruption, the cross-bedding present, and the gas cavities in the upper part not due to decomposition of vegetable remains; also in its being precisely like other tuffs which were undoubtedly formed in the same way both in physical and in mineralogical aspects.—F. **Chapman**: New or little-known Victorian fossils in the National Museum. Part xxiv.: A fossil tortoise in ironstone from Carapook, near Casterton. This is a replacement of the greater part of the body cavity of a tortoise, in which the vertebral column is well-marked. The sutures of the costal plates and the impression of the bones of the pelvic girdle are visible. The ventral surface shows the impress of the bones of the plastron. This cast is referred to Emydura, and with some reserve to the species *E. macquariae*, the Murray mud-tortoise. Pleistocene fossils of this species from Australia already exist in the British Museum (Natural History), London, as single bones. A curious point in physiography is suggested by the present occurrence: since the living Murray mud-tortoise is now found only in rivers flowing north into the Murray, the rivers of the Carapook district, which now flow into the Glenelg, probably had a northerly trend in the Pleistocene. This is also supported by local physiographic evidence.

BOOKS RECEIVED

A Synoptical List of the Accipitres (Diurnal Birds of Prey). Part i.: Sarcorhamphus to Accipiter. Pp. 38. (London: John Wheldon and Co., 1919.) 4*s.*

A Student's Book on Soils and Manures. By Dr. E. J. Russell. Second edition, revised and enlarged. (Cambridge Farm Institute Series.) Pp. xii+240. (Cambridge: At the University Press, 1919.) 6*s.* 6*d.* net.

Union of South Africa: Province of the Cape of Good Hope. Marine Biological Report, No. iv., for the period ending June 30, 1918. Pp. v+182+ii. (Cape Town: Cape Times, Ltd., 1918.)

Planetary Rotation Periods and Group Ratios: Two Essays on the Relations between the Planets in Diurnal Rotation and in Mass. By F. A. Black. Pp. xii+115. (Edinburgh and London: Gall and Inglis, n.d.) 3*s.* 6*d.*

Shell Shock and its Lessons. By Prof. G. Elliot Smith and T. H. Pear. New impression. Pp. xv+135. (Manchester: At the University Press; London: Longmans, Green, and Co., 1919.) 1*s.* 6*d.* net.

Scientific Signalling and Safety. By Prof. John Joly. Pp. 36+1 plate. (London: Taylor and Francis, 1919.) 1*s.* 6*d.* net.

The Statesman's Year-Book: Statistical and Historical Annual of the States of the World for the Year 1919. Edited by Sir John Scott Keltie and Dr. M. Epstein. Fifty-sixth annual publication. Revised after official returns. Pp. lii+1476. (London: Macmillan and Co., Ltd., 1919.) 18*s.* net.

Volumetric Analysis for Students of Pharmaceutical and General Chemistry. By Charles H. Hampshire. Second edition. Pp. 127. (London: J. and A. Churchill, 1919.) 5*s.* net.

Lectures on Sex and Heredity delivered in Glasgow, 1917–18. By F. O. Bower, J. Graham Kerr, and W. E. Agar. Pp. vi+119. (London: Macmillan and Co., Ltd., 1919.) 5*s.* net.

Insect Artisans and their Work. By Edward Step. (Hutchinson's Nature Library.) Pp. x+318. (London: Hutchinson and Co., 1919.) 7*s.* 6*d.* net.

The Seashore: Its Inhabitants and How to Know Them. By Forster Robson. Pp. 111. (London: Holden and Hardingham, Ltd., n.d.) 1*s.* 6*d.* net.

Coal Mines and Nationalisation. By Dr. Arthur Shadwell. Reprinted from the *Times*. Pp. 32. (London: Longmans, Green, and Co., 1919.) 1*s.*

CONTENTS.

PAGE

Applied Chemistry 421

The Principles of Radio-Communication. By **Dr. A. Russell** 423

Geographical Aspects of World Politics 423

Our Bookshelf 424

Letters to the Editor:—

- Labour and Scientific Research.—**P. G. Agnew** . . 425
- Behaviour of a Cuckoo.—**H. Eliot Howard** . 426
- Sparganophilus: A British Oligochæt.—**Rev. Hilderic Friend** 426
- The Brent Valley Bird Sanctuary.—**Wilfred Mark Webb** 426

The Structure of the Solar Atmosphere. (*Illustrated.*) 426

Prof. Emil Fischer, For.Mem.R.S. By **H. E. A.** . 430

Notes 431

Our Astronomical Column:—

- A World Survey 434
- Solar Physics at Cambridge 434
- The Spectrum of Nova Aquilæ 435

The British Association. Provisional Programmes of Sections 435

Cancer Research 435

The Metallography of Iron and Iron-Carbon Alloys. By **Prof. H. C. H. Carpenter, F.R.S.** . . 436

Sex, Reproduction, and Heredity in Pigeons and Fowls 436

Industrial Lighting 437

The Royal Society of Canada 437

University and Educational Intelligence 438

Societies and Academies 439

Books Received 440

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